



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

75 Hawthorne Street
San Francisco, CA 94105-3901

September 2, 1997

Honorable Esteban E. Torres
U.S. House of Representatives
2368 Rayburn House Office Building
Washington, DC 20515-0534

Dear Mr. Torres:

Thank you for your letter of July 22, 1997, expressing your concern over the recent discovery of perchlorate, a component of solid rocket fuel known to cause thyroid disorders, in East San Gabriel Groundwater. In response to your letter, my staff have advised me of the following:

EPA has taken a leadership role in addressing the perchlorate contamination at the San Gabriel Valley Sites and at other Superfund Sites in our region. Soon after perchlorate was discovered in the San Gabriel Basin in May of this year, EPA began to work with the California Department of Health Services, the Main San Gabriel Basin Watermaster, and the Baldwin Park Operable Unit Potentially Responsible Parties (PRPs) to analyze samples from water supply and monitoring wells to determine the extent of the perchlorate contamination. The attached table compiled by the California Department of Health Services shows that five water supply wells in the San Gabriel Valley exceed the 18 part per billion (ppb) Interim Action Level established by the State of California. The highest concentration observed through July in public drinking water wells in the San Gabriel Valley is 159 ppb. We are attaching an excerpt of a preliminary report on the distribution and treatability of perchlorate in the San Gabriel Valley prepared in July by the Baldwin Park PRPs.

By mid June, we determined that the perchlorate contamination in the Baldwin Park area is largely confined to the portions of the groundwater basin already contaminated by volatile organic compounds (VOCs), although the perchlorate appears to have moved somewhat further downstream than the VOCs. We do not yet have results from all wells in the San Gabriel Basin, but initial results indicate that the perchlorate contamination is limited primarily to the Azusa/Baldwin Park area.

EPA has also begun efforts to identify treatment technologies capable of removing perchlorate from water. We have consulted with researchers at EPA's laboratories, with private vendors, and with other experts to identify technologies capable of removing perchlorate from water. There are no perchlorate treatment systems in operation at any public water supplies in the United States, but there are several technologies that have the potential to remove perchlorate from contaminated water supplies in the San Gabriel Basin and elsewhere.

In August, we took several additional steps. First, we reached an agreement with the PRPs and their consultants to begin pilot-scale testing of a biological treatment process that has shown promise in removing perchlorate from a Superfund site in the Sacramento area. Second, we secured a commitment from the PRPs that their technical consultants would prepare and submit a comprehensive review of other potential perchlorate-removal technologies by the end of September. We have discussed these efforts with representatives of the California Department of Health Services, the Main San Gabriel Basin Watermaster, the Metropolitan Water District, and others to make sure that efforts to identify treatment technologies proceed as quickly as possible without any duplication of effort. We will do our part to ensure that the \$300,000 recently committed to perchlorate treatability studies and related issues by the Main San Gabriel Basin Watermaster, and the potential \$2 million proposed for inclusion in EPA's FY98 budget, will be spent in a manner to complement EPA's Superfund efforts. We have also reached an agreement with the PRPs to install at least two additional wells at the southern end of the Baldwin Park contamination later this year to better define the extent of perchlorate contamination and determine whether any changes are necessary in the Baldwin Park area groundwater cleanup plan. We are confident that the PRPs' consultants will complete the treatment studies and groundwater characterization work in a timely manner, but EPA is prepared to step in and complete the work if necessary.

Unfortunately, the need to develop a treatment technology capable of removing perchlorate at the scale needed for the Baldwin Park cleanup will delay construction of the groundwater cleanup project. EPA has granted the Baldwin Park PRPs a six month extension in the deadline for submittal of a *Good Faith Offer*, to February 1998, to allow time for evaluation of perchlorate treatment processes, installation and sampling of additional groundwater monitoring wells, and consultation with local water purveyors on potential treatment technologies.

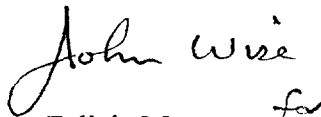
Perchlorate contamination has become a serious problem throughout Region 9. We believe that perchlorate contamination will become a nationwide concern as other states develop their analytical capabilities. In addition to the contamination in the San Gabriel Valley, EPA is aware of five areas in California where water supplies are threatened by perchlorate in groundwater. Outside of California, perchlorate contamination has been detected in the Colorado River at Lake Mead, but at concentrations less than the 18 ppb interim action level. We believe that the contamination in the Colorado River originated from one or more manufacturing facilities in Nevada and are working with the Nevada Division of Environmental Protection to investigate and control the sources of the contamination.

At the Regional and national levels, we are also working to assimilate and communicate nationwide developments in analytical methods and toxicological understanding. EPA has thoroughly reviewed numerous studies on the health effects of perchlorate on humans and animals and published conclusions in 1992 and 1995 (The more recent report is attached). The provisional reference dose range of 4 ppb to 18 ppb of perchlorate in drinking water is not an enforceable standard. However, California has used this information to establish their Interim

Action Level at 18 ppb, which does have the effect of a drinking water standard within California. The 18 ppb provisional reference dose was developed by identifying the level at which no observable adverse effect was detected in human subjects and reducing this level by a total safety factor of 300. This conservatism is warranted by the need to protect populations at greater risk than healthy adults, by the lack of studies of potential long-term effects, and by the moderate number of confirmatory studies. We are actively overseeing an upcoming toxicological study sponsored by the Air Force and a defense contractor (Aerojet).

We are working with the local water supply agencies, state regulatory agencies, the Air Force and private parties to address the many-faceted problems posed by perchlorate contamination. If we can be of further assistance, please call my Congressional Liaison Officer, Sunny Nelson, at (415) 744-1562.

Yours,


Felicia Marcus *for*
Regional Administrator

Enclosures: Table of Perchlorate in Water Supply Wells in California (July, 1997)
"Distribution and Treatability of Perchlorate in Groundwater
Baldwin Park Operable Unit San Gabriel Basin" July 15, 1997
"Review of Proposed Reference Dose (RfD) for Perchlorate"
National Center for Environmental Assessment, USEPA October, 1995